Dec. 3, 1935. J. F. PETERS 2,022,780

CONTAINER

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Fig. 1

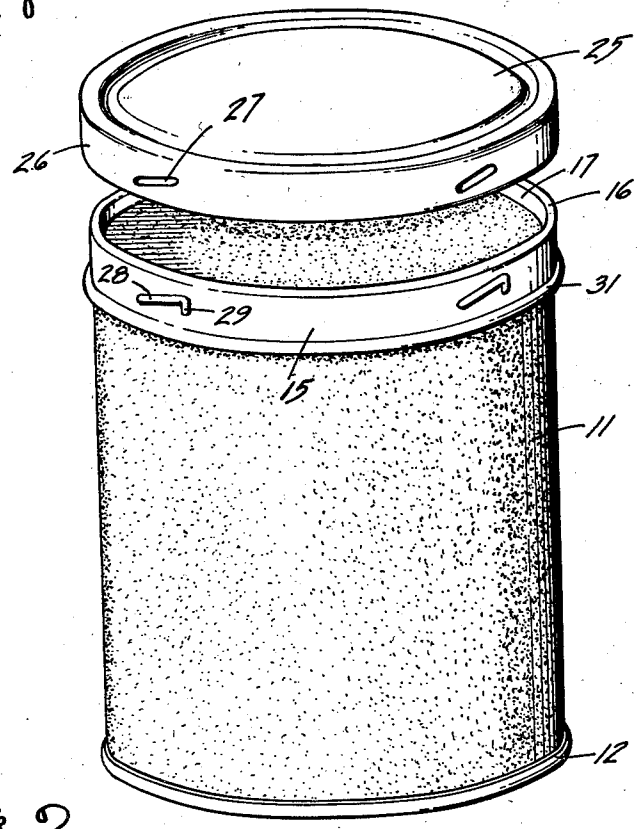
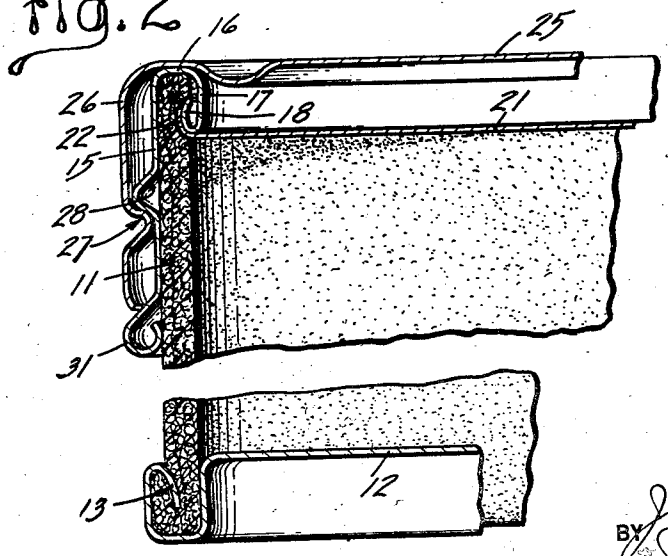


Fig. 2



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CONTAINER

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13 Claims. (Cl. 229—5.7)

This invention relates to fibre cans or containers provided with frangible seals at the top and having metallic closures for protecting the frangible seals until received by the consumer. The invention concerns itself more particularly with improvement in construction of the parts entering into a screw connection between the body and the cover and holding the frangible seal in place.

An important object of the invention is the provision of a cam, closed as above described, and in which the parts will be constructed in such manner that a metallic collar holding the frangible seal firmly in place and providing threads for interlocking engagement with a flanged separate cover will greatly strengthen the open end of the fibre body and protect the cover flange from being forced out to disrupt the threaded engagement, and will securely hold the frangible seal in sealing position and protect it until received by the consumer.

Another important object of the invention is a can or container of the character described, in which the raw edges of the band or collar will be turned into or toward the material in rounded form to the end that no raw or sharp edges are presented to cut the hand of the consumer, or to cut the material of the container body and the frangible seal.

Numerous other objects and advantages of the invention will be apparent as it is better understood from the following description, which, taken in connection with the accompanying drawing, discloses a preferred embodiment thereof.

Referring to the drawing:

Figure 1 is a perspective view of one form of container embodying the present invention and illustrating the metallic cover lifted and separated from the container; and

Fig. 2 is a fragmentary longitudinal sectional view, on an enlarged scale, of the sealed container with its metallic cover in closed position.

For the purpose of illustrating a preferred embodiment of the invention there is disclosed in the drawing a container formed with a fibre body 11 on the bottom end of which is secured a metallic bottom or end 12 having its marginal edge 13 (Fig. 2) bent into sealing position with the end of the body.

A metallic collar 15 is arranged about the outside of the upper end of the body 11, this collar being bent inwardly in an annular horizontal wall 16 which merges into a vertical flange 17 on the inside of the body wall and has its terminal edge curled back on itself at 18 and embedded into the fibre wall 11.

A frangible disc 21 is used to initially close the end of the container, and this disc has its peripheral edge 22 clamped in between the curled edge 18 of the collar flange 17 and the body wall 11. As illustrated in Fig. 2, this peripheral edge of the disc is embedded in the body wall with the inside terminal edge of the collar flange 18. Breaking of the frangible seal effects opening of the container.

A metal cover 25 is provided and is adapted to seat upon the wall 16 of the collar 15 in which position (Fig. 2) it encloses and protects the frangible seal 21. The cover 25 is bent downwardly into an encircling flange 26 which passes over the outside of the collar 15 when the cover is applied to the container.

Provision is made for locking the cover 25 on the container and for this purpose the cover flange 26 is provided with spaced interrupted threads 27 which may be struck inwardly from the flange wall, these thread sections being disposed at an angle to the top wall of the cover.

The thread sections 27 of the cover engage beneath similar interrupted threads 28 formed in the outside wall of the collar 15, these thread sections being preferably pressed outwardly and also disposed at an angle to the rim of the collar so that by applying the cover 25 onto the end of the container and rotating it in a clockwise direction (Fig. 1) the threads 27 engage beneath and interlock with the threads 28 of the collar. This rotation of the cover draws it tightly down against the wall 16 of the collar and locks it in closing position on the container.

Downwardly extending locking lugs 29 may be struck out from the collar wall at one end of the threads 28 and in applying the cover 25 its threads 27 are sprung out over the lugs 29 and are moved past the lugs. With the cover in closed position, these lugs 29 form locking means to resist the backward turning of the cover and to prevent accidental displacement or loosening of the cover, the lugs being in the path of the threads 27 when the cover is turned in a reverse or backward direction. In removing the cover, therefore, it is necessary to again spring its threads 27 out and over the locking lugs 29.

The bottom edge of the collar 15 is curled inwardly and upwardly against the body wall into a curled bead 31 which is spaced from the lower edge of the cover flange 26 when the cover is in closed position. This bead protects the lower edge of the cover, its outer diameter being sub-

stantially the same as the diameter of the cover wall.

By reason of the inturning or curling of the flange edge 18 on the inside of the container and the curling of the lower edge of the collar to produce the bead 31 all of the raw edges of the collar are turned inwardly out of exposed position. The curled edge on the inside of the container prevents the contents coming into contact with any raw edge and the outer curl prevents exposure of the raw edge on the outside of the can. The flange 18 is or may be turned up into partial parallelism with the inner surface of the body so as to indent the same without cutting the material of the frangible disc.

It is thought that the invention and many of its attendant advantages will be understood from the foregoing description, and it will be apparent that various changes may be made in the form, construction and arrangement of the parts without departing from the spirit and scope of the invention or sacrificing all of its material advantages, the form hereinbefore described being merely a preferred embodiment thereof.

I claim:

1. A container, comprising in combination a fibre body, a metal collar secured to one end of said body and having a flange depending on the inside of the body with its marginal edge portion rounded and embedded in the wall of said body, a frangible disc extending across the end of said body and having its peripheral edge pressed into said body wall by the rounded edge portion of said collar flange, both edge margins of said collar being confined between said collar and said body and out of contact with the hands of the user and a metal cover adapted to engage said collar and enclose said frangible seal.

2. A container, comprising in combination a fibre body, a metal collar secured to one end of said body and having interrupted screw threads formed in its outer wall and having a flange extending on the inside of the body where its terminal edge is embedded in the wall of said body, a frangible disc extending across the end of said body and having its peripheral edge embedded in said body wall with the terminal edge of said collar flange, and a threaded metal cover adapted to engage the threads of said collar to lock said cover on the container to enclose said frangible seal, the terminal inside edge of the collar being bent upward into partial parallelism with the body.

3. A container, comprising in combination a fibre body, a metal collar applied to one end of said body and resting against its outside wall, said collar having a flange extending down on the inside of the body, said flange being substantially parallel with said outside wall and having its terminal edge curled back and embedded in the inner wall of the body to enclose its raw edge and secure the collar in position, a frangible disc extending across and closing the end of said body and having its peripheral edge clamped in between the curled back terminal edge of said collar flange and the inner wall of said body and compressed into the material of the body, and a metal cover adapted to engage outside of said collar and enclose said frangible seal.

4. A container, comprising in combination a fibre body, a metal collar applied to one end of said body and resting against its outside wall, said collar having its lower edge curled outwardly and inwardly to provide an encircling bead and having a flange extending down on the inside of the body, said flange having its terminal edge curled back and embedded in the inner wall of the body, a frangible disc extending across and closing the end of said body and having its peripheral edge embedded in said body wall with the curled edge of said collar flange, and a metal cover adapted to rest on and lock with said collar and to enclose said frangible seal, said cover having a lower edge spaced from and protected by said collar bead when the cover is in container closing position, and said collar having locking means to resist the backward turning of the cover.

5. A container, comprising in combination, a body of relatively soft material, a collar of relatively hard material surrounding an end of said body and having an outer wall portion parallel with and engaging the outer surface of said body and having an inner depending wall substantially parallel with said outer wall portion with its marginal edge turned upwardly to provide a rounded bead, a frangible seal closing said body and having its marginal edge disposed between said body and collar, said rounded bead being adapted to embed itself in without cutting said seal and body.

6. A container, comprising in combination, a body of relatively soft material, a collar of relatively hard material surrounding an end of said body and having an outer wall portion parallel with and engaging the outer surface of said body and an inner depending wall substantially parallel with said outer wall portion and having its marginal edge turned outwardly and upwardly to provide a rounded bead embedded in the side wall of the body without cutting said material to prevent relative movement between said container and collar during manipulation of a cover, and a threaded cover adapted to engage threads on said collar to close said container.

7. A container, comprising in combination a fibre body, a metal collar secured to one end of said body and having a flange including a portion extending downwardly parallel to the inside of the body wall and thence turned outwardly and upwardly to provide a terminal portion embedded in the wall of said body, a frangible disc extending across the end of said body and having its peripheral edge embedded in said body wall and clamped between the latter and the upwardly extending terminal portion of said collar flange, and a metal cover adapted to engage said collar and enclose said frangible seal.

8. A container, comprising in combination a fibre body, a metal collar applied to one end of said body and resting against its outside wall, said collar having a flange extending downwardly along the inside of the body wall and thence turned upwardly to provide a terminal portion embedded in the inner wall of the body to conceal its raw edge and secure the collar in position, a frangible disc extending across and closing the end of said body and having its peripheral edge clamped in between the upwardly extending terminal portion of said collar flange and the inner wall of said body and compressed into the material of the body, and a metal cover adapted to engage outside of said collar and enclose said frangible seal.

9. A container, comprising in combination a fibre body, a metal collar applied to one end of said body and resting against its outside wall, said collar having its lower edge curled outwardly and inwardly to provide an encircling bead and having a flange extending downwardly along the in-

side of the body wall and thence turned upwardly to provide a vertically extending terminal portion embedded in the inner wall of the body, a frangible disc extending across and closing the end of said body and having its peripheral edge embedded in said body wall and clamped between the latter and the vertically extending terminal portion of said collar flange, and a metal cover adapted to rest on and lock with said collar and to enclose said frangible seal, said cover having a lower edge spaced from and protected by said collar bead when the cover is in container closing position, and said collar having locking means to resist the backward turning of the cover.

10. A container, comprising in combination a fibre body, a metallic collar embracing an end of the body and having interrupted screw threads arranged circumferentially of the body, and a metallic cover terminating in a downwardly depending edge and provided with interrupted threads engaging the interrupted threads of the collar, the lower external portion of said collar being curled outwardly into vertical alignment with the depending cover edge to protect the lower edge of the cover from lateral displacement and resulting release of said screw threaded engagement, said lower external portion of said collar being thence curled inwardly and upwardly to conceal the raw edge of the collar.

11. A container closure comprising, in combination, a container body of relatively soft material, a collar of relatively hard material secured to the top of said body to reenforce the same and depending outwardly therefrom, a frangible seal clamped between said top and collar, and a cover overlying said seal and collar, said cover and collar having cooperating interrupted threads to hold said cover firmly in place, said collar threads being provided at their upper extremity with depending knobs over which said cover threads are adapted to ride and behind which the upper extremities of said cover threads are removably locked.

12. In combination, a container body of fibrous material, a surmounted metallic collar secured to the top of said body to reenforce the same, a frangible seal clamped between said top and collar, a cover overlying said seal and collar, and a locking device comprising cooperating interrupted inclined ribs in the side walls of the cover and on the collar, with some at least of the inclined ribs being provided at one end with an offset knob, said knob being directed reversely to the general line of inclination of the ribs and being adapted to prevent accidental retrograde displacement of said cover.

13. A fibre container body having a metal collar applied to one end of said body and resting against its outside wall, said collar having a flange extending down on the inside of the body and a flange extending down on the outside of the body, the outside flange being provided with inclined thread sections, a container cover fitting over said collar and having a depending flange provided with inclined thread sections, said inclined collar and cover thread sections cooperating with each other when the said cover is applied to the can body, said body threads each having a downwardly disposed projection at the upper end thereof adapted to engage a thread section of the cover when the latter is applied to yieldably resist accidental loosening thereof.

JOHN F. PETERS.